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10/034,477	12/28/2001	Nimrod Megiddo	ARC920010058US1	2173

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EXAMINER

WONG, LESLIE

ART UNIT PAPER NUMBER

2167

DATE MAILED: 06/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/034,477

Applicant(s)

MEGIDDO ET AL.

Examiner

Leslie Wong

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 23 February 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Response to Amendment*

1. Receipt of Applicant's Amendment, filed 23 February 2005, is acknowledged.

### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-12 are rejected under 35 U.S.C. 102(e) as being anticipated by **Chang et al.** ("Chang") (U.S. Patent 6,704,728 B1).

Regarding claims 1, 4-5, **Chang** teaches a method, performed by a search engine, comprising:

- a). determining tokens (col. 2, lines 56-67);
- b). assigning related expressions to each of the tokens responsive to the determining to define each of the tokens (col. 9, lines 52-54; col. 5, lines 39-42);
- c). searching documents responsive to the assigning (col. 9, lines 57-60);

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d). identifying occurrences of any of the related expressions for any of the tokens in any of the documents responsive to the searching (col. 5, lines 24-26; col. 10, lines 65-67; col. 9, lines 52-54); and

e). assigning each of the documents, having at least one of the related expressions for at least one of the tokens, to the at least one of the tokens responsive to the identifying to create an index (col. 2, lines 24-30; col. 10, lines 19-39).

Regarding claim 2, **Chang** further teaches wherein the tokens described at least one of: time zones, time units, month, date, day of the week, distance, length, speed, temperature, currency, IP address (i.e., CPU speed) (col. 3, lines 52-56).

Regarding claim 3, **Chang** further teaches wherein the related expressions for each of the tokens is different for each of the tokens (i.e., laptop vs. pc)(col. 5, lines 39-42).

Regarding claim 6, **Chang** further teaches providing information about the tokens to a user of the search engine (col. 5, lines 63 – col. 6, line 2).

Regarding claims 7 and 8, **Chang** teaches a method, performed by a search engine, comprising:

a). receiving a search query (col. 2, lines 56-59);

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- b). identifying at least one token in the search query responsive to the receiving, wherein related expressions are assigned to the at least one token (col. 9, lines 16-24);
- c). finding the at least one token in an index to identify documents, having an occurrence of at least one of the related expressions for the at least one token, corresponding to the at least one token responsive to the identifying (col. 10, lines 19-39); and
- d). providing information related to the documents responsive to of finding (col. 5, line 63 – col. 6, line 2).

Regarding claim 9, **Chang** further teaches providing feedback related to the accuracy of the at least one token (col. 3, line 45 – col. 4, line 5).

Regarding claim 10, **Chang** teaches a method, performed by a search engine, comprising:

- a). performing a background routine, during a first amount of time, including:
  - 1). determining tokens (col. 2, lines 56-67);
  - 2). assigning related expressions to each of the tokens responsive to the determining to define each of the tokens (col. 9, lines 52-54; col. 5, lines 39-42);
  - 3). searching documents responsive to the assigning (col. 9, lines 57-60);

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- 4). identifying occurrences of any of the related expressions for any of the tokens in any of the documents responsive to the searching (col. 5, lines 24-26; col. 10, lines 65-67; col. 9, lines 52-54); and
  - 5). indexing each of the documents, having at least one of the related expressions for at least one of the tokens, corresponding to the at least one of the tokens responsive to the identifying the occurrences (col. 2, lines 24-30; col. 10, lines 19-39); and
- b). performing a foreground routine, during a second amount of time substantially less than the first amount of time, including:
- 1). receiving a search query (col. 2, lines 56-59);
  - 2). identifying at least one token in the search query responsive to the receiving (col. 9, lines 16-24);
  - 3). finding the at least one token in an index to identify documents, having an occurrence of at least one of the related expressions for the at least one the token, corresponding to the at least one the token responsive to the identifying the at least one token (col. 10, lines 19-39); and
  - 4). providing information related to the documents responsive to the finding (col. 5, line 63 – col. 6, line 2).

Regarding claim 11, **Chang** teaches a method, performed by a user interface device, comprising:

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- a). receiving from an input source a search query that includes at least one token, wherein related expressions are assigned to the at least one token (col. 2, lines 56-59; col. 9, lines 52-54; col. 5, lines 39-42);
- b). sending the search query to a search engine responsive to the receiving (col. 2, lines 48-55); and
- c). receiving from the search engine information related to documents, having an occurrence of at least one of the related expressions for the at least one the token, responsive to the sending (col. 2, lines 48-55; col. 5, line 63 – col. 6, line 2).

Regarding claim 12, **Chang** teaches a system for searching and retrieving documents comprising:

- a). a database for storing documents (Fig. 1, element 21);
- b). a memory device (Fig. 1, element 14) for storing software, tokens and an index, wherein the software includes a background routine and a foreground routine, wherein each token has related expressions assigned thereto, wherein the index has documents, having an occurrence of at least one of the related expressions for at least one of the tokens, assigned to the at least one of the tokens (col. 9, lines 52-54; col. 5, lines 39-42; col. 10, lines 19-39);
- c). a user interface device (Fig. 1, element 12) for accepting and sending search queries having at least one token and for receiving information related to the documents, having an occurrence of at least one of the related expressions for the at least one of the token; and

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d). a controller electrically coupled to the memory device (Fig. 1, element 10), the user interface device and the database, and for managing communications between the memory device and the user interface device responsive to the foreground routine to respond to the search queries having the token, and for managing communications between the memory device and the database responsive to the background routine in the software to create the index (col. 10, lines 19-39; col. 2, lines 56-59; col. 9, lines 52-54).

### ***Response to Argument***

4. Applicants' arguments filed 23 February 2005 have been fully considered but they are not persuasive.

Applicants argue that Chang fails to teach the "tokens" and "related expressions" as taught by the present invention and precisely defined in the specification.

In response to the preceding arguments, Examiner respectfully submits that Applicants' broadly claim "determining tokens" reads on Chang's word or keyword within the query. Further, Chang teaches "related expressions" as putative keys and values (i.e., key="CPU Speed" and value ="500 MHz")(col. 3, lines 1-10 and 46-56). It is submitted that Chang's teaching of token and related expression is in conformity with Applicants' invention.



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The meaning of token as defined in the Microsoft Press Computer Dictionary Third Edition is any non-reducible textual element in data that is being parsed, for example, the use in a program of a variable name, a reserved word, or an operator. Applicants' specification page 6, lines 11-13, provides an example of a token as speed and has related expressions as miles per hour, mph, kilometers per hour, etc... Further, Applicants' specification page 7, lines 15-27, discloses that tokens are intended to be part of a search query received by the search engine. Additionally, Applicants' specification page 8, lines 7-11, suggests that tokens permit a person to expand their search query for multiple expressions of the same or related thing in a search query to increase the effectiveness of creating search queries to retrieve greater numbers of relevant documents.

Applicants' invention is related to searching and retrieving document using predefined tokens (i.e., keywords) to create a search query. The applied reference, Chang et al. teaches accessing information from a collection of data includes receiving a query by a user. A query may be a word (i.e., token), multiple words, sentence fragment, or a complete sentence. The query is normalized as pretext. The normalized text is parsed, converting the normalized text into fragments adapted for further processing. Annotating words as putative keys and values (i.e., related expressions), according to a feature lexicon, produces fragments. For example, the lexicon may specify that the term "CompaqR" is a potential value and that "CPU speed" is a potential key. Multiple annotations are possible. Thus, similar to Applicants' invention, Chang's

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system is directed to provide more meaningful results in response to the user query (abstract; col. 2, lines 56-67; col. 3, lines 1-10; col. 4, lines 6-15).

Based on the above, Examiner submits that Chang teaches the limitations as claimed.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leslie Wong whose telephone number is (571) 272-4120. The examiner can normally be reached on Monday to Friday 9:30am - 6:30 pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John E Breene can be reached on (571) 272-4107. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Leslie Wong  
Patent Examiner  
Art Unit 2167

LW  
May 28, 2005